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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,514	11/17/2006	Shoya Yoda	293946US40PCT	2046
22850	7590	10/29/2009	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				PEZZUTO, HELEN LEE
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
10/29/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/588,514	YODA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Helen L. Pezzuto	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 30 September 2009.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) 11-18 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-10 and 19 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) 1-19 are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-10, and 19 in the reply filed on 9/30/09 is acknowledged.
2. Claims 11-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/30/09.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, and 7-8 rejected under 35 U.S.C. 102(b) as being anticipated by JP-11-130822.

JP-822 ( a copy of its translation is herein provided) discloses and exemplifies a hydrophilic polymer having a weight average molecular weight of 500-500,000, comprising structural units as set forth in formula (1) defined within

the scope of the instant monomers (A) and (B). Prior art teaches a compositional ratio of unit (1) to unit (2) ranges from 10:90 to 90:10 (see abstract; page 3, [0011]). Embodiments within the scope of the instant (A) and (B) monomer species are exemplified ( page 3, [0020]; page 4, [0023], [0026]; page 5, [0032]; page 6, [0038], [0041]). Thus, anticipating the present claims.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-10, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 19532229 or JP-03-227489 or Charmot et al. (US-918 with the exception of claims 2-4, and 10).

DE-229 (a copy of its translation is herein provided) discloses a water-soluble polymer dispersion comprising 50-99.99 wt% of at least one water-soluble monomer (a1), 0.01-10 wt% N-methylol group-containing crosslinking monomer (a2), up to 1 wt% of polyethylenically unsaturated

crosslinking monomer (a3), up to 30 wt% of a hydrophobic monomer (a4), and up to 20 wt% of an amphiphilic monomer (a5) (see abstract; page 3, lines 5-16). Suitable water-soluble monomer (a1) include N-(2-hydroxyethyl) (meth)acrylamide (page 4, line 52), 3-(N,N,N-trimethylammoniummethyl) (meth)acrylate chloride, 3-(N,N,N-trimethylammonium)propyl (meth)acrylate chloride, and 3-trimethylammoniumpropyl (meth)acrylamide chloride (page 5, lines 14-15, 18), disclosed within the scope of the instant monomer (A) and (B) as expressed in the present claims. The resultant polymer is taught to have a weight average molecular weight of at least  $5 \times 10^5$  Dalton, meeting the range expressed in claim 8 (page 13, lines 28-29). Accordingly, it would have been obvious to one having ordinary skill in the art to prepare a water-soluble polymer comprising a mixture of (a1) monomers as taught, motivated by the reasonable expectation of success.

JP-489 (a copy of its translation is herein provided) discloses a process of preparing paper making additive derived from polymerizing a vinyl monomer in the presence of a water-soluble polymer. Specifically, prior art water-soluble polymer is derived from 0.01 to 20 mol% of a reactive monomer and at least one of anionic, cationic or

non-ionic monomer (pages 608-609). Suitable reactive monomer include N-hydroxymethyl (meth)acrylamide, and suitable cationic monomer include quaternary ammonium salts of dialkylaminoethyl (meth)acrylate and dialkylaminopropyl (meth)acrylate (page 609, page 611, Example 1), within the scope of the instant monomers (A) and (B). Prior art teaches a solid content of 3-60 wt% based on the water-soluble polymer, and a weight average molecular weight of 100,000 to 2,000,000 (page 610). Thus, it would have been obvious to one having ordinary skilled in the art to select a mixture of reactive and cationic monomer as taught, motivated by the reasonable expectation of success. Since hydroxyethyl (meth)acrylamide as expressed in claim 4 are homologues of prior art hydroxymethyl (meth)acrylamide, a skilled artisan would readily envisaged replacing the methylene linkage in JP-489 with a homologue such as a ethylene linkage in view of their closely related structures and the resulting expectation of similar papermaking additive properties.

US 2005/0063918 A1 to Charmot et al. discloses an oral composition comprising at least 40 mol% of a monomer as set forth in formula (I), and at least one or more additional cationic or neutral comonomers (page 1, [0003]). Suitable

cationic and neutral monomers include [2(methacryloyloxy)ethyl] trimethylammonium chloride (MAETMAC) and N-[tris(hydroxymethyl)methyl] acrylamide (THMMAM) (page 1, [0009-[0010]]), taught within the scope of the instant monomers (A) and (B). US-918 suggests preparing oral compositions containing 0.01 to 10 wt% of the resultant polymer (page 1, [0017]). Prior art appears to be silent regarding the molecular weight of the resultant polymer. The examiner is of the position that being silent, prior art is generic to a polymer product having any molecular weight, inclusive of applicants', absent showing of unexpected results demonstrated for the claimed range. In any event, one having ordinary skill in the art would have expected the molecular weight to fall within the claimed range, as shown for those of control polymers (page 3, [0065]-[0067]). It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges would involve only routine skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helen L. Pezzuto/  
Primary Examiner  
Art Unit 1796

hlp